found are *Indigofera* sp., *Ipomea longituba*, *Monodenium* sp., *Ramphicarpus* sp., and *Dipcadi viride*. Other birds breeding in the area are few, namely, *Mirafra africana*, *Calandrella rufescens*, *Calandrella cinerea*, *Anthus novaeseelandiae* and *Oenanthe pileata*.

Breeding of the Spike-heeled Lark takes place after the first few showers of rain. Two nests were found. The first, on 15th April 1967, was situated in a flat plain, and contained two large, well-feathered young who filled the nest. The parents were feeding them with insects, and executed a bouncing approach flight, uttering a repeated twanging chirp. The second nest was found on 7th November 1967 and was situated somewhat in the lee of the prevailing wind at the base of a low hill, and contained two fresh eggs. Both nests were shallow cups of dead grass, lined with coarse dead grass leaves and small scraps of cow-dung. The eggs, measuring 21.5 mm × 15 mm, were off-white, the whole surface speckled with fine irregular spots of dull brown and purplish grey, with occasional slightly larger, light brown blotches, and zoned at the larger end. On 17th May 1967 two pairs were seen feeding fledged young with caterpillars. These latter two breeding dates agree with Benson & Forbes-Watson (1966).

When not breeding, the birds are found mainly in two's and three's, but sometimes in parties of up to ten. In 47 *recorded* sightings of this species, I have only seen singletons twice, which seems to indicate they they remain in pairs throughout the year or are somewhat gregarious.

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Nasal glands in *Cinclodes nigrofumosus*, a maritime passerine

by Raymond A. Paynter, Jr.

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The furnariid *Cinclodes nigrofumosus* is a resident of rocky areas on the coast of Peru and Chile. Its behaviour resembles that of a shorebird, particularly the Surfbird (*Aphriza virgata*), as it feeds among rocks and in sand, dodging waves and spray while calling loudly above the noise of the pounding breakers. For most of its range the species occurs at the edge of the rainless coastal desert, where the only source of water is the sea. Its maritime existence even exceeds that of most shorebirds, for it builds its nest of marine algae in crevices of rocks close to the water (Tovar, 1968).

As is now well known, most seabirds are able to tolerate a high salt intake by extrarenally excreting excess sodium chloride in a highly hypertonic solution by means of the paired nasal glands, which are enlarged and function as the so-called "salt glands". Some passerine birds, as for example a salt marsh race of the Savannah Sparrow, *Ammodramus sandwichensis beldingi*, are also capable of existing on sea water. However, as far as is known, no passerine has a functional salt gland; those species subject to heavy salt loads seem instead to rely on the kidneys, and possibly the gut and cloaca, to produce urine with a chloride concentration far in excess of that which can be excreted by species not normally exposed to saline water (Poulson and Bartholomew, 1962; Cade, 1964).

On a recent visit to Peru I observed *Cinclodes nigrofumosus* very briefly but long enough to appreciate that it is almost certainly the most maritime of all passerine birds. It occurred to me that if functional salt glands do exist among

the passerines, in all likelihood they would occur in this species. Manuel A. Plenge, of Lima, kindly agreed to collect specimens for anatomical examination. Two birds were secured on 23rd May 1969 at Playa Leon Dormido, about 85 km south of Lima. Both specimens are females with slightly enlarged ovaries. The stomach of one contained mostly fine sand with fragments of crustaceans (presumably decapods), as well as an almost microscopic bivalve. The stomach of the other also contained sand, as well as several small (5 mm) crabs, unidentifiable crustacean fragments, and a single small isopod.

The nasal glands are small, rimming the dorsal edges of the orbits in a position described by Technau (1936) as "exorbital", or type "IId" in his system of classification. Each gland is approximately 18 mm long, meaning that it edges about half of the orbit. It has a maximum width of 1.3 mm and a maximum thickness of .3 mm. The gland does not differ in gross morphology from that of other passerines, and seems to be of the same relative size as, or smaller than, exorbital glands in species which presumably do not have to cope with excessive salt loads. For example, *Cinclus cinclus*, which is approximately the same size as *Cinclodes nigrofumosus*, has a nasal gland of very similar dimensions (Technau, 1936: 595), while a specimen of House Wren (*Troglodytes aedon*) from Colorado, a species less than one-quarter the size of *Cinclodes nigrofumosus*, has a relatively larger gland, measuring approximately 9 mm in length and .7 and .3 mm in breadth and depth, respectively (pers. observ.). While the small size of the gland in *Cinclodes nigrofumosus*, and its morphological similarity to that of other passerines, is not conclusively indicative that it is not a salt-excreting organ, it is difficult to conceive of it as having this function when one considers the gland's enormous size and distinctive appearance in seabirds.

In contrast to the diminutive nasal gland, the Harderian gland in *Cinclodes nigrofumosus* is of a substantial size, covering about one third of the orbital wall. This is characteristic of many marine birds. Apparently the viscous secretion of the Harderian gland is produced copiously in orded to protect the eye from irritation by sea water.

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Some errors concerning eggs of Somalia birds

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by C. J. O. Harrison & M. P. Walters

In examining material collected by Sir Geoffrey Archer in Somaliland some errors in identifications of eggs have become apparent.

Archer (1961) collected a clutch of three eggs in British Somaliland (Somalia) and ascribed these to the "Somaliland Cinnamon-rufous Long-billed Lark," *Mirafra somalica* (= *Certhilauda somalica*). Lord Rothschild purchased a collection of eggs of Somaliland birds from Archer; and when this was bequeathed to the British Museum (Natural History) two clutches, a clutch of three with the set-mark 550, and a clutch of one with the set-mark 551, were registered as belonging to this species. Both were registered under the number 1941.3.5.97. The second clutch has been recently re-registered as 1951.3.5.134.